

GRUNDFOS Pumper AS

Rune Sesaker



GRUNDFOS® 

- Best på pumper

➤ Grundfos hovedkvarter ligger i Bjerringbro på Jylland

Historie og fakta

- Poul Due Jensen (1912-1977) grunnla GRUNDFOS i 1945.
- GRUNDFOS er et familieeid selskap med Niels Due Jensen som eier.
- GRUNDFOS produserer over 10.000.000 pumper pr. år.
- Konsernet har en omsetning i 2011 på ca. DKK 21 milliarder.
- Antall ansatte ca. 18000



○○○ GRUNDFOS PRODUKSJON

Kina

Singapore

U.S.A.

Danmark

Ungarn

Finland

Frankrike

Russland

Taiwan

England

Sverige (Töreboda)

Mexico

Tyskland



➤ Grundfos Pumper AS Norge

Grundfos er Norges ledende leverandør av pumper til transportering av flytende medier.

➤ Fakta

- Omsetning 260 mill. i 2011
- Antall ansatte ca 80
- Aktive innenfor VVS, VA og Industri
- Landsdekkende service
- Kontorer i Oslo, Bergen, Biri, Larvik, Kristiansand, Ålesund, Trondheim, Stavanger og Fredrikstad.



● Grundfos' avd.kontor





**HØSTE
N 2006**

GRUNDFOS PUMPER AS ETABLERER

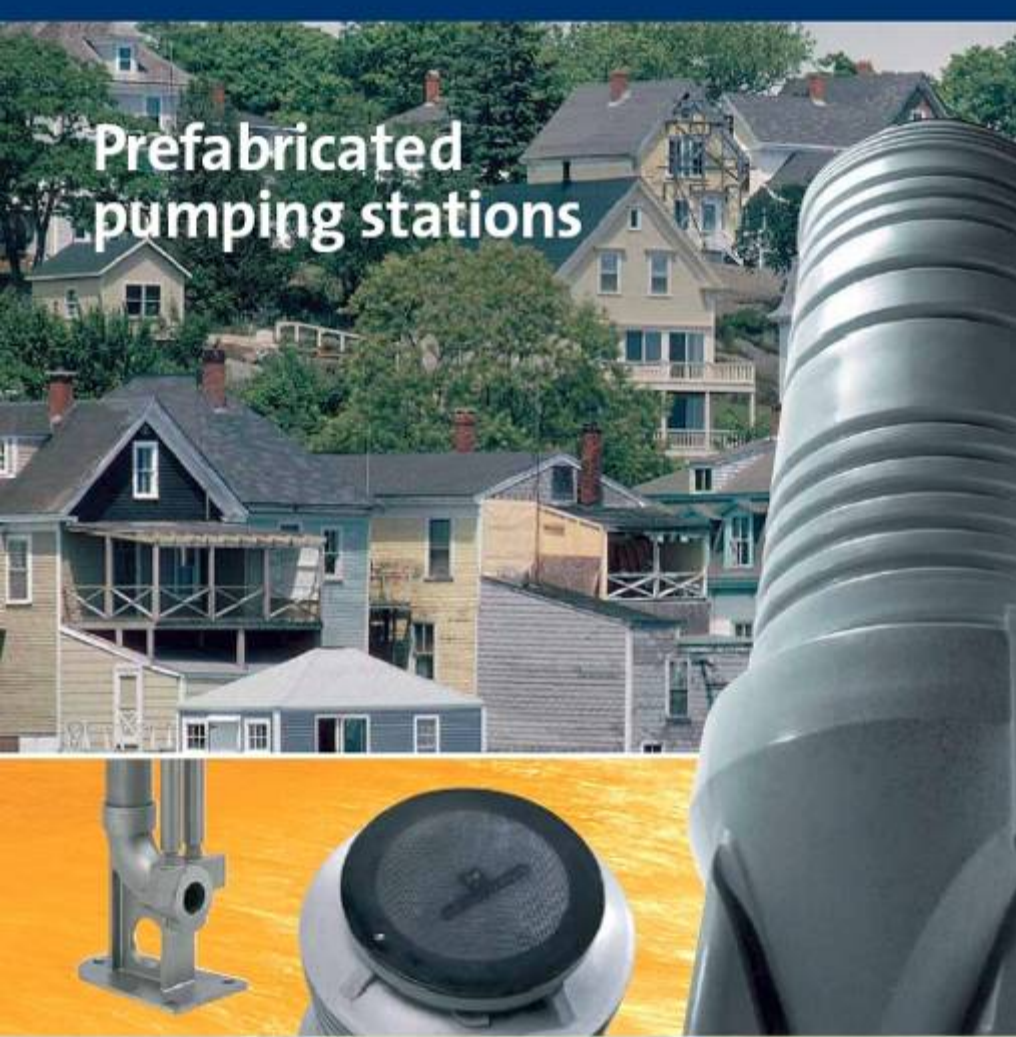
AVD. TR. HEIM



Grundfos wastewater product portfolio



Prefabricated pumping stations



BE > THINK > INNOVATE >

GRUNDFOS 



GRUNDFOS 

Related solutions

Prefabricated pumping stations

The PUST range:

Ø400:

- 2 meter length

Ø600 and Ø800:

- 1, 1 ½ , 2, 2 ½ , 3 meter in length

Ø1000:

- 2, 2 ½ , 3 meter in length

Ø1700

- 2, 2 ½ , 3, 3 ½..... 6 meter in length

Pipes and valves in SS og PE

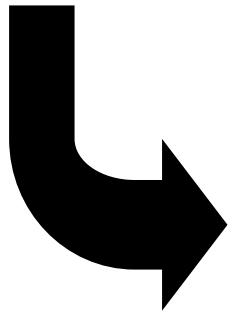
Other ranges:

We have a huge range of customized pumping stations in both PE and GRP



How to build a pumping station

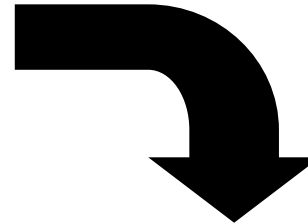
Pumps



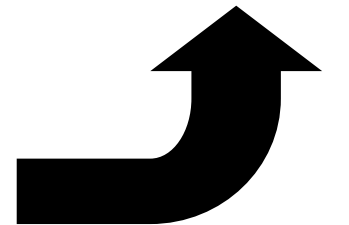
**Pumping station/
pipe work and cover**



**Level
monitoring
system**



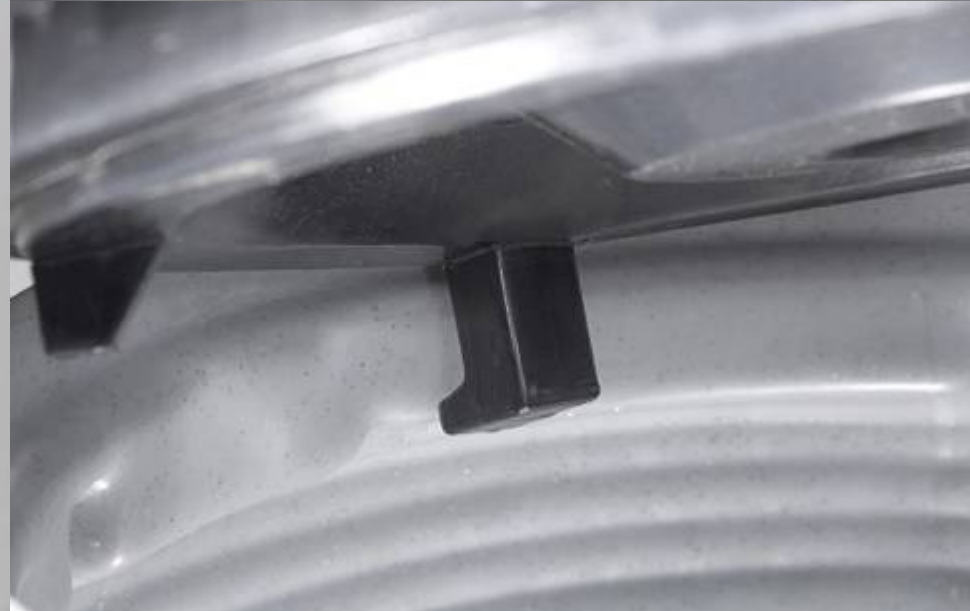
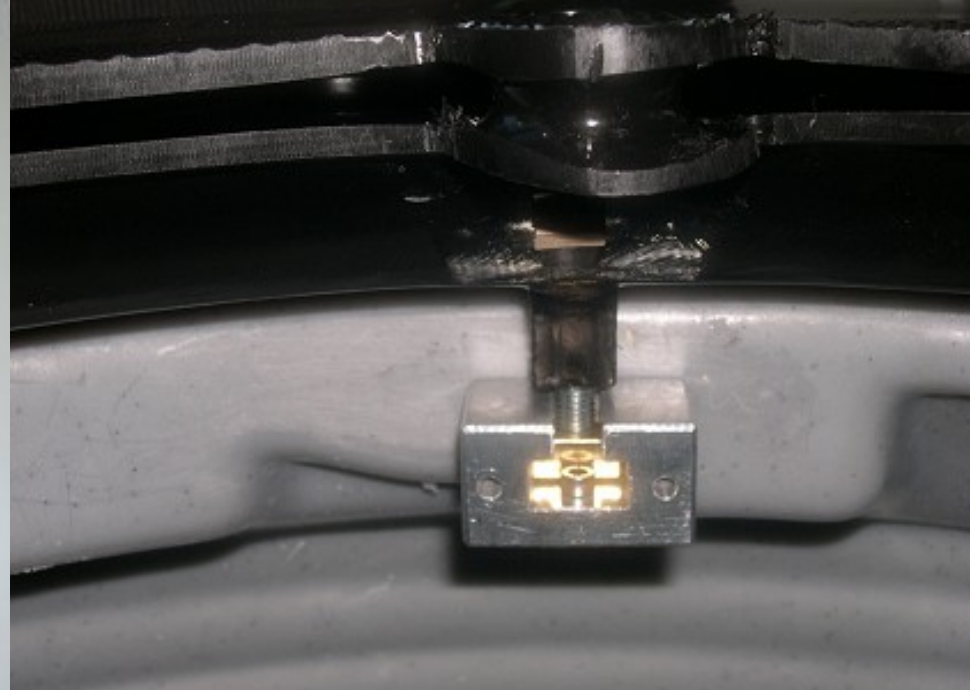
Accessories



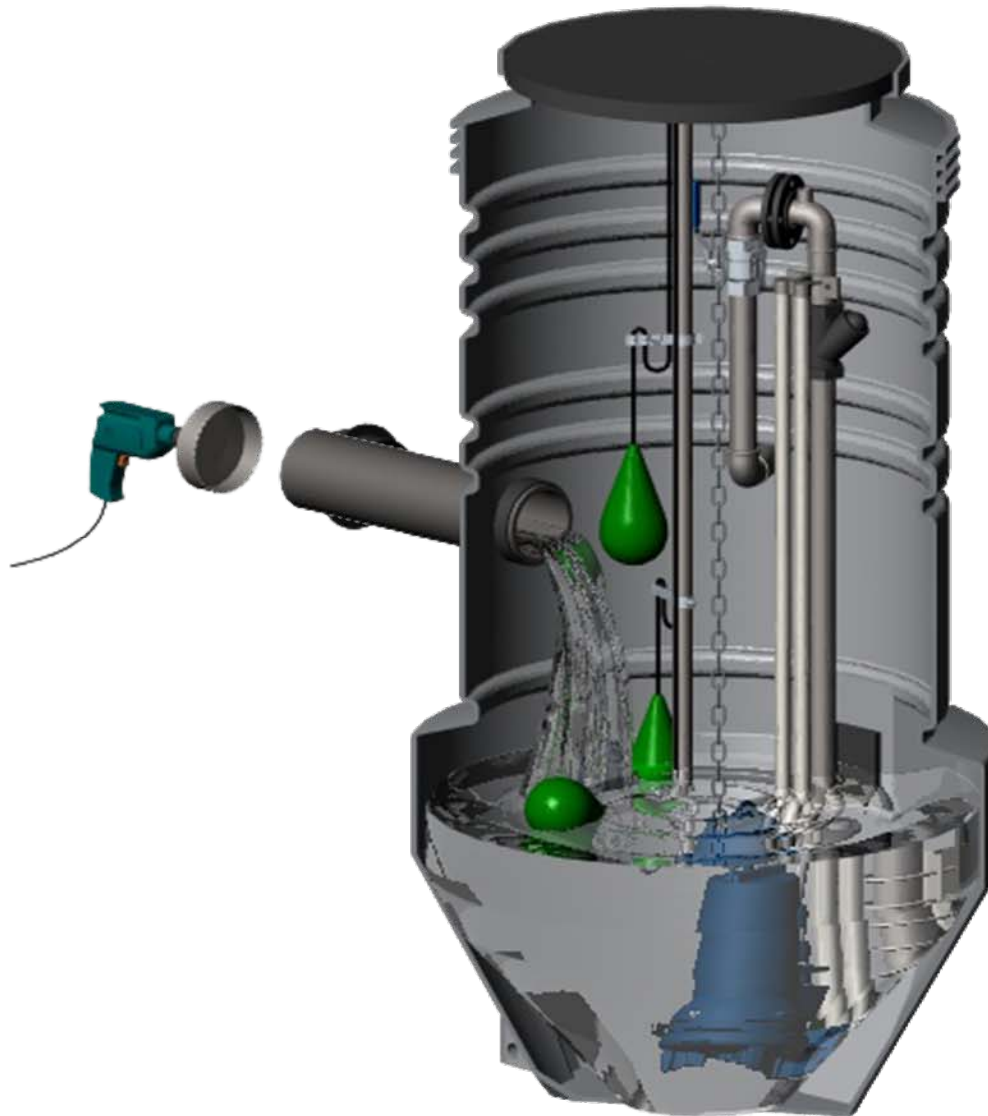
Controls



PE cover



Flexibility and quality



Welcome to Grundfos SEG pumps



SEG



SEG AUTOADAPT

What is SEG pumps?

Main characteristics

- 2-pole wastewater grinder pumps
- The SEG range is fitted with patented grinder system.
- Designed for submerged installation
- Range in STANDARD, [AUTOADAPT](#) and EX versions:
 - 0.9 and 1.2 kW single phase
 - 0.9, 1.2, 1.5, 2.6, 3.2 and 4.0 kW three phase
- Discharge: DN40, but will also fit a DN50 flange.
- Many monitoring and data communication possibilities
- Customised solutions available, etc.

Technical data

Hmax:	45 meter
Qmax:	5 l/s (18 m3/h)
Max. liquid temp.:	40 °C (short periods up to 60 °C)
pH range:	4-10
Motor size:	0.9 to 4 kW
IP class	IP 68
Max. install. depth:	10 meter
Max allowed starts:	Zmax = 20 starts/hour



Examples of installation



Used in:

- Pump stations
- Portable installations

Main accessories:

Extension feet to lift the pump and improve the performance



•Used in:

- Pump stations
- Stationary sewage systems

Main accessories:

Auto-coupling incl. guide claw and upper guide rail



Used in:

- Pump stations
- Stationary sewage systems

Main accessories:

Hook-up auto-coupling with built-in non-return ball valve. Incl. elbow, gasket and

Standard version

**Plug
connectio
n**

**Heavy-duty
maintenance-
free ball
bearings**

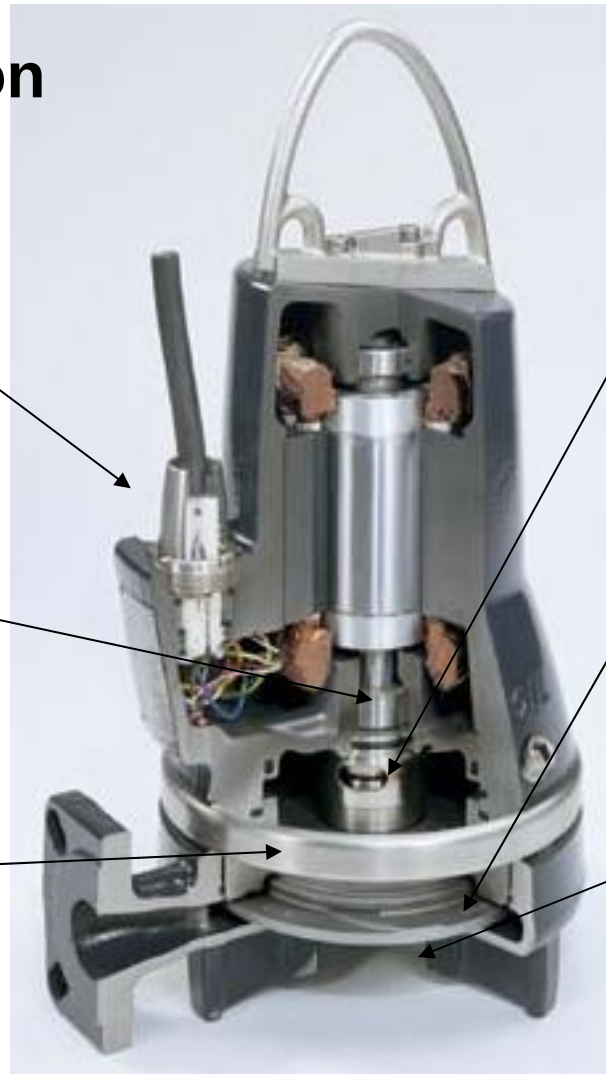
**Stainless
steel clamp**

**Cartridge seal
system**

**SmartTrim
system**

**Patented
grinder
system**

Standard Heavy duty



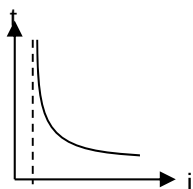
AUTOADAPT add on features



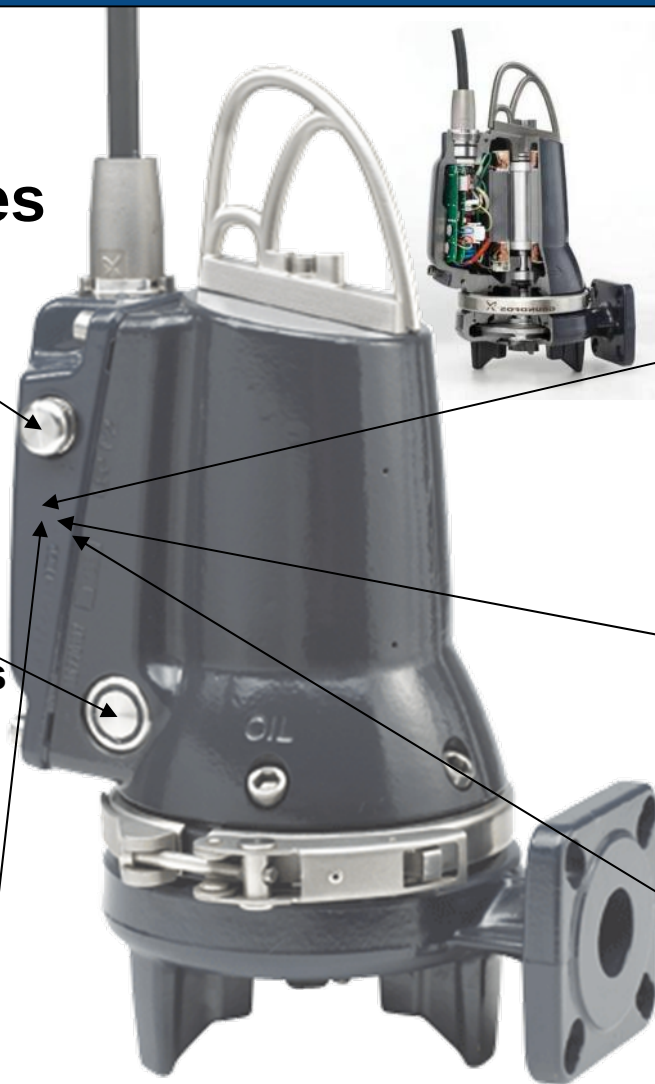
Build in
absolute
analogue
pressure
transmitter



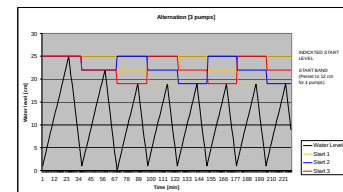
Build in dry-run
sensor, on Ex.
versions there is
two and a Ex.
barrier



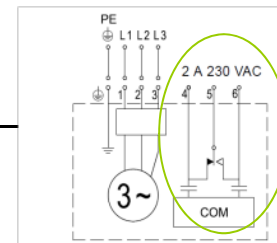
Build in motor
protection,
not approved
as stand
stand alone



Intelligent
operation &
monitoring of
pumps
condition



Build in alarm
relay and
many
advanced
settings



Logging of
failure and
operations
parameters



AUTOADAPT
version on

Wastewater pumps with **electronic** for **autonomous operation** covering below product range



SEG “full range”



EF30 “full range”



DP10 “full range”



SL1 and SLV (up to 1,5 kW)

Accessories

Mechanical accessories

No	Product	Description	Dimensions	Product number
1		Lifting chain with shackle. With certificates. Galvanised steel.	3 m	96497466
			6 m	96497465
			10 m	96497464
2		Auto-coupling system complete, i.e. upper guide rail holder, bolts, nuts, gaskets, guide claw and base stand. Cast iron.	DN 40 / Rp 1 1/2	96076063
3		Hookup auto-coupling, i.e. base stand, counterpart, bolts, nuts and gaskets. Cast iron.	DN 40 / Rp 1 1/2	96076089
		Hookup auto-coupling, i.e. base stand. Cast iron.	Rp / Rp 2	96004442
4		Three loose feet to be fitted to the pump housing of free-standing pumps.		96076196

Electronical accessories

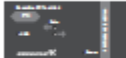
For standard range



Dedicated control LC/LCD

CU 100

For AUTOADAPT range

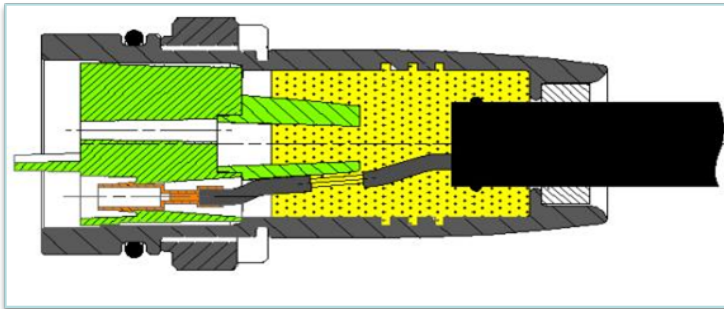
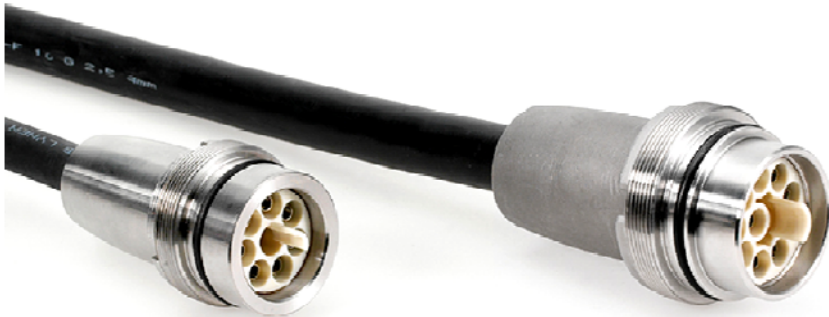
5		Grundfos Powerline PC Tool Link USB communication unit.	All AUTOADAPT pumps	97655366
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PC power line tool



CIU

Kabelplugg



Fyllstoff er vist med gult.

SE pumpene kommer med en enkel tilkobling av motoren via en kabelplugg.

Eliminerer behovet for elektriker til å koble fra.

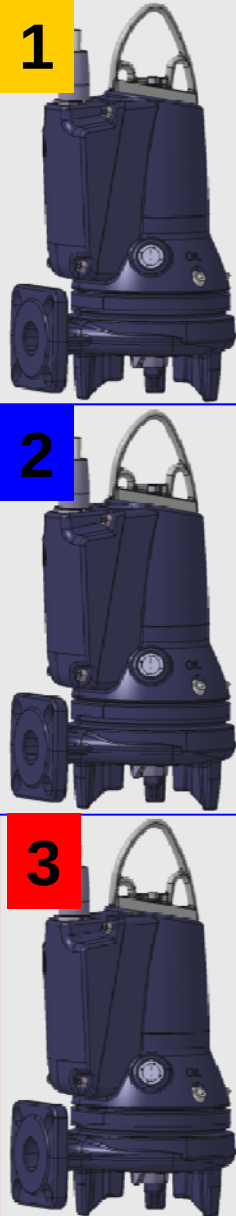
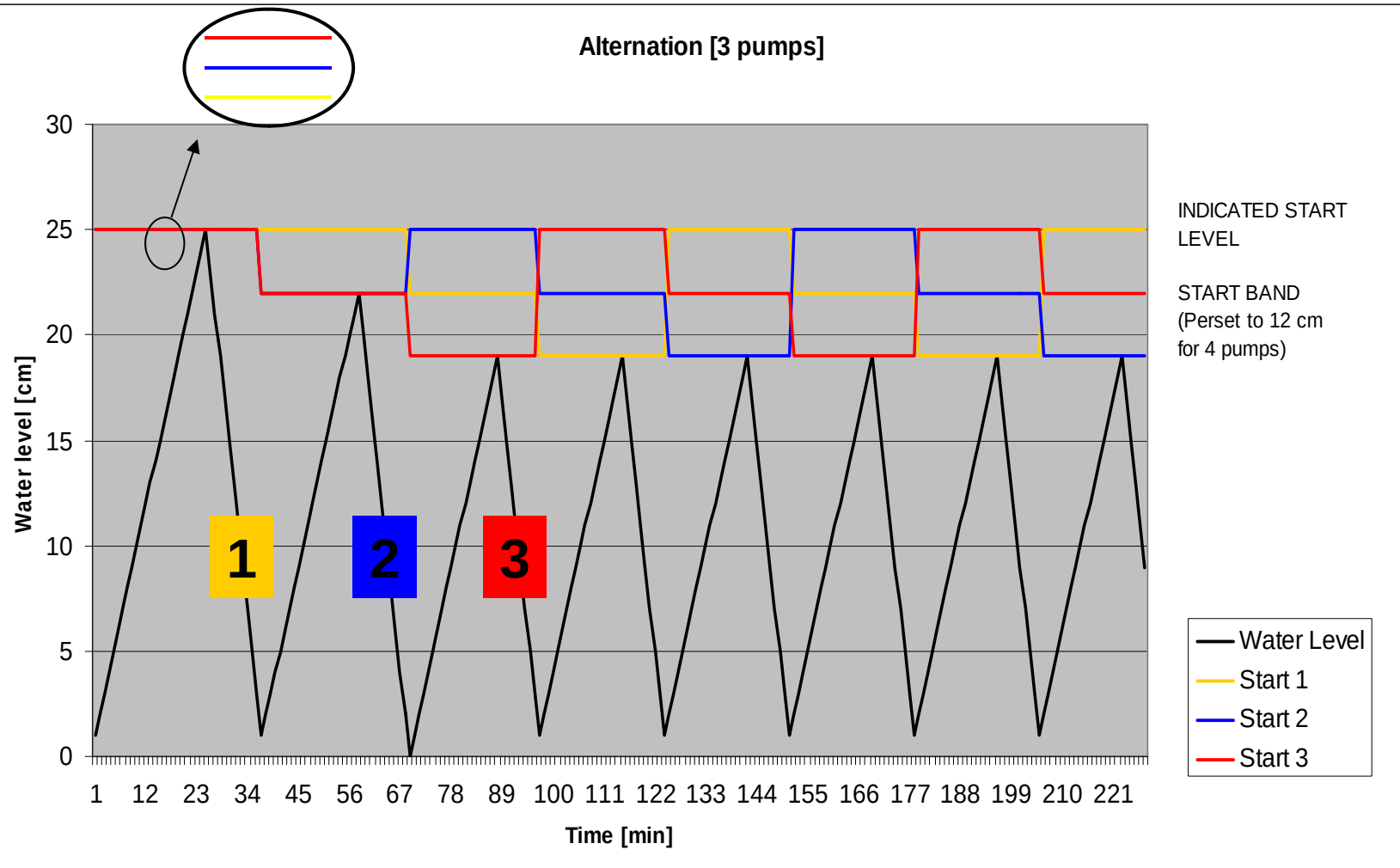
Kabelpluggen er hermetisk lukket med et to-komponent fyllstoff.

Ingen risiko for vanninntrengning gjennom kabelen.



Built-in:

✓ Electrical circuit for start/stop and alternation







Built-in:

Two sets of thermal switches in the stator windings.

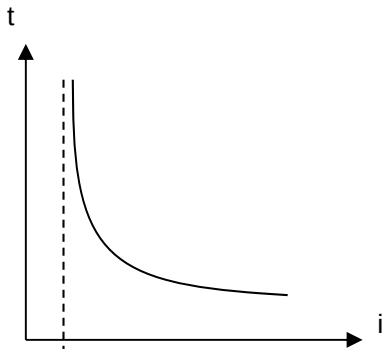
Two sensors for analog temperature measurement.

Build-in motor protection $i^2(t)$ as extra security

✓ motor protection

So the motor is protected for:

- dry running.
- voltage surges (up to 4000 V) in areas with high lightning intensity.
- over voltage.
- under voltage.
- over load.
- over temperature





Communication box

Communication with the pumps

GENIbus for communication of measurement data and status information.



External communication

Possibility for external communication through communication box :

- SMS, GPRS, GSM
- Modbus
- GRM



**TAKK
FOR
OSS!**

Rune Sesaker

